

	L #	Hits	Search Text	DBs	Time Stamp
1	L1	7163	(427/526,531,562,564, 595,96,77,123,125).CC LS.	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:20
2	L2	4443	(438/584,652,622,650, 666,674,685,686,688). CCLS.	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:22
3	L3	5880	FIB focused adj ion adj beam	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:23
4	L4	67	(1 or 2) and 3	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:24

10/084,688

	L #	Hits	Search Text	DBs	Time Stamp
5	L5	610	(1 or 2) and (3 or ion near (beam ray stream))	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/09 15:25
6	L6	371	(nano nanometer nanoscale nm) with (metal conductor Al W Pt aluminum tungsten platinum) same(3 or ion near (beam ray stream))	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/09 15:32
7	L7	741	(nano nanometer nanoscale nm) with (metal conductor Al W Pt aluminum tungsten platinum) same(sensor)	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/09 15:32
8	L8	1	5 and 6 and 7	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/09 15:34

	L #	Hits	Search Text	DBs	Time Stamp
9	L9	16	6 and 7 not 8	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:33
10	L10	4	5 and 7 not (8 or 9)	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:35
11	L11	13	5 and 6 not (8 or 9 or 10)	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:36
12	L12	33	10 or 9 or 11	USPA T; US-P GPUB ; EPO; JPO; DERW ENT; IBM TDB	2003/09/0 9 15:36

	Document ID	Issue Date	Title	Current OR	Inventor
1	US 2003004 0173 A1	<i>proof</i> 8/14/01 4/9/01 3/26/02 2003022 7 <i>SC. devices</i>	Fabrica tion of molecul ar scale devices using fluidic assembl y	438/622	Fonash, Stephen J. et al.

*NOT  
prior  
art*

*[0064] application ⇒ Sensors ... Nanoscale*

42

	Document ID	Issue Date	Title	Current OR	Inventor
1	US 2003014 3827 A1	20030731	Low area metal contact s for photovoltaic devices	438/597	Wenham, Stuart Ross et al.
2	US 2003004 7028 A1	20030313	Nanomaterials of composite metal oxides	75/230	Kunitake, Toyoki et al.
3	US 2003003 6204 A1	20030220	Surface plasmon enhanced illumination system	436/172	Stark, Peter Randolph Hazard et al.
4	[0051] GMR Sensor Pt-Mn (0-20% (48-76)) [0052] IB sputter US 2003003 5253 A1	20030220	Magnetoresistance sensors with Pt-Mn transverse and longitudinal pinning layers, and their fabrication method	360/324	Lin, Tsann et al.
5	US 2003002 0060 A1 DIV → 4/21/00 PN 6,476,409	20030130	Nanostructure s, process for preparing nano-structures and devices	257/13	Iwasaki, Tatsuya et al.

poor ant pull  
8

[0011] ... Gas sensors ... nanoholes filled w/ metal ...  
[0123] the Al film irradiated w/ FIB → form pore points at 60nm intervals  
FIB → Ga

	Document ID	Issue Date	Title	Current OR	Inventor
6	US 20030002226 A1	20030102	Fabrication method for spin valve sensor with insulating and conducting seed layers	360/314	Lin, Tsann et al.
7	US 20020190251 A1 IB SpatH	20021219	Thin film materials of amorphous metal oxides	257/43	Kunitake, Toyoki et al.
8	US 20020109134 A1 [146] AI + FIB → // lines at 100nm interval	20020815	NANO-STRUCTURES, PROCESS FOR PREPARING NANO-STRUCTURES AND DEVICES	257/13	Iwasaki, Tatsuya et al.
9	US 20020086526 A1 (AD) FIB - multi layer	20020704	Apparatus and a method for forming an alloy layer over a substrate	438/653	Gavish, Ilan
10	US 20020056816 A1	20020516	Surface plasmon enhanced illumination system	250/493.1	Stark, Peter Randolph Hazard

	Document ID	Issue Date	Title	Current OR	Inventor
11	US 20020012797 A1	20020131	Multilayer system with protecting layer system and production method	428/408	Bijkerk, Frederick et al.
12	US 6607779 B2	20030819	Nanotechnology for photonic and optical components	427/58	Yadav, Tapeshe et al.
13	US 6592725 B2	20030715	Fabrication method for spin valve sensor with insulating and conducting seed layers	204/192.2	Lin, Tsann et al.
14	US 6562523 B1	20030513	Direct write all-glass photomask blanks	430/5	Wu, Che-Kuang et al.

	Document ID	Issue Date	Title	Current OR	Inventor
<del>15</del>	US 6548398 B1	20030415	Production method of semiconductor device and production device therefor	438/622	Yamasaki, Hideaki
<del>16</del>	US 6524756 B1	20030225	Gray scale all-glass photomasks	430/5	Wu, Che-Kuang
<del>17</del>	US 6521098 B1	20030218	Fabrication method for spin valve sensor with insulating and conducting seed layers	204/192.11	Lin, Tsann et al.
18	US 6514453 B2	20030204	Thermal sensors prepared from nanostructuree d powders	264/618	Vigliotti, Anthony et al.
19	US 6476409 B2	20021105	Nano-structures, process for preparing nano-structures and devices	257/13	Iwasaki, Tatsuya et al.

~~15~~

~~16~~

~~17~~

?? (D15)

18

(D61)

IB Spots

Polymer, including IB treated poly

A nanoscale thermistor from

Thermal sensors prepared from nanostructuree d powders

like 14

pull

5, 8 =



cut only  
pull

	Document ID	Issue Date	Title	Current OR	Inventor
(AB) 20	US 6413880 B1	20020702	Strongly textured atomic ridge and dot fabrication	(D7) For... "R. & B. et al." 438/759	Baski, Alison et al.
(D49)	alter the steps of Ex. 7 metal ridges; 10-50nm thick... Sensors				
21	US 6313905 B1	20011106	Apparatus and method for defining a pattern on a substrate	355/55	Brugger, Juergen P. et al.
(AB) 22	US 6259350 B1	20010710	<u>Sensor and method</u> for manufacturing a sensor	338/25	Mueller-Fiedler, Roland et al.

(D6) In a pad...  
... PE layer 23 > 100nm ... Top sensor

(D7) The pref. manufac... planar-etch process using IB etch

	Document ID	Issue Date	Title	Current OR	Inventor
23	US 6168845 B1	20010102	Patterned magnetic media and method of making the same using selective oxidation	428/65.5	Fontana, Jr., Robert Edward et al.
24	US 5912044 A	19990615	Method for forming thin film capacitors	427/79	Farooq, Mukta Shaji et al.

(B1)  
cont. metal  
cont.  
... 50% H<sub>2</sub>, I.B. dep.  
hand dep.

etch

	Document ID	Issue Date	Title	Current OR	Inventor
25	(B8) the sub... IBP US 5789320 A IB et al.	19980804	Plating of noble metal electrodes for DRAM and FRAM	438/678	Andrica cos, Panayotis Constantinou et al.
26	(B10) 2 react... FEB... US 5741557 A	19980421	Method for depositing metal fine lines on a substrate	427/469	Corbin, Antoine et al.
27	US 5227364 A	19930713	Method of forming patterned oxide superconducting films and Josephson junction devices by using an aqueous alkaline solution	505/329	Fujiwara, Shuji et al.

pull \*

	Document ID	Issue Date	Title	Current OR	Inventor
<del>28</del>	US 5192714 A	19930309	Method of manufacturing a multilayered metallization structure in which the conductive layer and insulating layer are selectively deposited	438/631	Suguro, Kyoichi et al.
29	US 4908226 A	19900313	Selective area nucleation and growth method for metal chemical vapor deposition using focused ion beams	427/526	Kubena, Randall L. et al.

*AD, from metal house  
FEB*

*Pull  
X*

pull

	Document ID	Issue Date	Title	Current OR	Inventor
30	US 4853341 A	19890801	Process for forming <del>electro-</del> des for semiconductor devices using focused ion beams	438/625	Nishioka, Tadashi et al.
<del>31</del>	<del>US 4782302 A</del>	<del>19881101</del>	<del>Detecto r and energy analyze r for energet ic-hydr ogen in beams and plasmas</del>	<del>324/71. 3</del>	<del>Bastasz , Robert J. et al.</del>
<del>32</del>	<del>US 4686162 A</del>	<del>19870811</del>	<del>Optical ly structu red filter and process for its product ion</del>	<del>430/5</del>	<del>Stangl, Gunther et al.</del>
33	US 4001061 A	19770104	Single lithography for multiple-layer bubble domain devices	427/96	Ahn, Kie Y. et al.